Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended)   An audio and video data processor, comprising:

        a selector for selecting ~~at least a portion of an~~ from a first audio data stream at least a portion thereof, said first audio data stream being synchronized with corresponding visual events in a moving picture video data stream;

        an audio feature analyzer for abstracting from said selected portion of said first audio data stream a stream of time-varying features representative of time-varying acoustic features and for abstracting corresponding time-varying features from an input second audio data stream;

        a timing analysis and waveform editing processor adapted to determine timing differences between said stream of time-varying features and said corresponding time-varying features and to utilize said timing differences to edit said input second audio data stream to produce an edited input second audio data stream from which said timing differences are substantially removed; and

        a playback control module adapted to control running of said synchronized first audio data and video data streams with said edited input second audio data stream such that said edited input second audio data stream replaces ~~replacing~~ said selected portion and is synchronized with said corresponding visual events in said video data stream.

2. (Currently Amended)   A data processing system for audio and video data, comprising a computer readable medium having thereon:

        digitized audio and moving picture video data for providing [[an]] a first audio data stream synchronized with corresponding visual events in a moving picture video data stream;

        timing data representative of a plurality of selected times in a running of said synchronized first audio data stream and said video data stream[[s]];

audio feature data for providing a data stream of time-varying features abstracted from at least a selected portion of said <u>first</u> audio data stream <u>and representative of audible time-varying acoustic features</u>;

an audio feature analyzer for abstracting a corresponding stream of time-varying features from an input <u>second</u> audio data stream;

a timing analysis and waveform editing processor adapted to determine timing differences between said streams of time-varying features and to utilize said timing differences to edit said input <u>second</u> audio data stream and produce edited input audio data <u>from which said timing differences are substantially removed</u>; and

a playback control module adapted to control running <u>of</u> said synchronized audio data and video data streams with said edited input <u>second</u> audio data ~~replacing~~ <u>such that said edited input second audio data replaces</u> said selected portion <u>and is synchronized with said corresponding visual events in said video data stream</u>.

3. (Currently Amended)   A data processing system according to claim 2, further comprising cueing data representative of timing of said selected portion of said <u>first</u> audio data stream.

4. (Currently Amended)   A data processing system according to claim 2, further comprising additional digitized audio data for providing a further audio data stream ~~synchronized~~ <u>started concurrently</u> with said video data stream.

5.   (Cancelled)

6. (Currently Amended)   A method of providing a processing system for audio and video data, comprising the steps of:

storing digitized audio and <u>moving picture</u> video data for providing [[an]] <u>a first</u> audio data stream synchronized with <u>corresponding visual events in a moving picture</u> [[a]] video data stream;

storing timing data representative of a plurality of selected times in a running of said synchronized audio and video data streams;

selecting at least a portion of said <u>first</u> audio data stream;

abstracting from the selected portion of said first audio data stream audio feature data for providing a data stream of time-varying features<u>, said audio feature data being representative of audible time-varying acoustic features</u>;

storing the abstracted audio feature data;

storing an audio feature analyzer for abstracting a corresponding stream of time-varying features from an input <u>second</u> audio data stream;

storing a timing analysis and waveform editing processor adapted to determine timing differences between said data stream of time-varying features and corresponding features abstracted from [[an]] <u>said</u> input <u>second</u> audio data stream <u>and to produce an editing input second audio data stream from which said timing differences are substantially removed</u>; and

storing a playback control module for controlling running <u>of</u> said synchronized audio data and video data streams with edited <u>second</u> input audio data from said processor <u>such that said edited input second audio data replaces</u> ~~replacing~~ said selected portion <u>and is synchronized with said corresponding visual events in said moving picture video data stream</u>.

7. (Currently Amended)   A method according to claim 6, further comprising the step of:

storing cueing data representative of timing of said selected portion of said <u>first</u> audio data stream.

8. (Currently Amended)   A method according to claim 6, further comprising the step of:
    storing additional digitized audio data for providing a further audio data stream ~~synchronized~~ started concurrently with said video data stream.

9. (Currently Amended)   A method according to claim 6, wherein said timing data further comprises gain control data adapted to control audio gain at selected times during a running of said synchronized audio and video data stream to effect replacement of said selected portion.

10. (Currently Amended)   A method of processing audio data, comprising the steps of:
    providing an original first audio data stream synchronized with corresponding visual events in a moving picture video data stream;
    selecting at least a portion of said original first audio data stream;
    storing an input second audio data stream substantially in synchronization with a portion of said video data stream corresponding to the selected portion of said original audio data stream;
    abstracting from said input second audio data stream a stream of time-varying features of the input second audio data stream, said time-varying features being representative of audible time-varying acoustic features;
    comparing the abstracted stream of time-varying features from said input second audio data stream with a corresponding stream of time-varying features abstracted from said selected portion of said original first audio data stream and determining timing differences between said streams of time-varying features;
    utilizing said timing differences to edit said input second audio data stream and produce edited input second audio data from which said timing differences are substantially removed; and
    running said portion of said ~~synchronized original audio data stream and~~ video data stream with said edited input second audio data such that said edited input second audio data replaces ~~replacing~~ said selected portion and is synchronized with said corresponding visual events in said moving picture video data stream.

11.   (Cancelled)

12. (Currently Amended)   A method according to claim 10, wherein more than one portion of said original ~~first~~ audio data stream is selected.

13.   (Cancelled)

14. (Currently Amended)   Apparatus for processing audio data, comprising:

means for deriving from audio data feature data representative of audible time-varying acoustic features of the audio data;

means for selecting ~~from data representing synchronously~~ a portion of a stream of streamable moving picture video and audio data, ~~data representing a portion of a stream of the streamable data~~ said audio data being synchronized with corresponding visual events in said video data, and measuring ~~durations~~ position [[of]] and ~~intervals containing audible~~ time-varying acoustic features of [[the]] a selected duration of said audio data in said selected portion; and

means for populating a database with data and measurements provided by said selecting and measuring means.

15. (Original) Apparatus according to claim 14, further comprising means for populating said database with text related to said data and measurements provided by said selecting and measuring means.

16. (Currently Amended)   ~~Audio~~ A computer readable medium having thereon audio and video data processing software comprising:

a feature analysis program adapted to derive from audio data feature data representative of audible time-varying acoustic features of the audio data;

a comparison and timing program adapted to compare first feature data derived from first audio data ~~synchronously associated~~ synchronized with corresponding visual events in moving picture video data with second feature data derived from second audio data and to determine timing differences between the first and second feature data;

an editing program adapted to edit the second audio data in dependence upon said timing differences such as to provide edited second audio data in a synchronous relation to said first audio data; and

a streaming program adapted to synchronously output said video data and said edited second audio data while muting said first audio data whereby said edited second audio data replaces said first audio data and is synchronized with said corresponding visual events in said video data.

17. (Currently Amended)   ~~Audio~~ A computer readable medium having thereon audio and video data processing software comprising:

a feature analysis program adapted to derive from audio data feature data representative of audible time-varying acoustic features of the audio data;

a selection and measuring program adapted to select ~~from data representing synchronously streamable video and audio data data representing~~ a portion of a stream of [[the]] streamable moving picture video and audio data and to measure position ~~durations of~~ and ~~intervals containing~~ audible time-varying acoustic features of a selected duration of the audio data, said audio data being synchronized with corresponding visual events in said video data; and

a database program adapted to populate a database with data and measurements provided by said selection and measuring program.

18. (Currently Amended)   ~~Audio and video data processing software~~ A computer readable medium according to claim 17, wherein said database program is further adapted to enable population of said database with text related to said data and measurements provided by said selection and measuring program.

19. (Currently Amended)   Apparatus for processing audio and video data, comprising:

means for selecting ~~from data representing synchronously streamable video and audio data scene data representing~~ a portion of a stream of [[the]] streamable <u>moving picture video and audio</u> data and measuring <u>position</u> ~~durations of~~ and ~~intervals containing~~ audible time-varying acoustic features of <u>a selected duration of</u> said audio data within said data<u>, said audio data being synchronized with corresponding visual events in said video data</u>; and

means for populating a database with scene data and measurements provided by said selecting and measuring means.

20. (Original) Apparatus according to claim 19, further comprising means for populating said database with text related to said scene data and measurements.

21. (Original) Apparatus according to claim 19, further comprising means for populating said database with still data representative of static video data extractable from said scene data.

22. (Currently Amended)   ~~Audio~~ <u>A computer readable medium having thereon audio</u> and video data processing software comprising:

a selection and measuring program adapted to select<u>,</u> from data representing synchronously streamable <u>moving picture</u> video <u>data</u> and audio data<u>,</u> scene data representing a portion of a stream of the streamable <u>video data and audio</u> data and to measure ~~duration~~ <u>timing</u> of [[an]] intervals containing audible time-varying acoustic features of audio data within said scene data<u>, said audio data being synchronized with corresponding visual events in said video data</u>; and

a database program adapted to populate a database with scene data and measurements provided by said selection and measuring program.

23. (Currently Amended) ~~Audio and video data processing software~~ A computer readable medium according to claim 22, wherein said database program is further adapted to populate said database with text related to said scene data and measurements.

24. (Currently Amended) ~~Audio and video data processing software~~ A computer readable medium according to claim 22, wherein said database program is further adapted to populate said database with still data representative of static video data extractable from said scene data.

25. (Cancelled)

26. (Currently Amended) A method of processing audio data, comprising the steps of:
    selecting, from a stream of streamable data representing ~~synchronously streamable~~ sound- and- motion- synchronized moving picture video and audio data, scene data representing a portion of [[a]] said stream of the streamable data;
    measuring position ~~durations of~~ and ~~intervals containing~~ audible time-varying acoustic features of a selected duration of the audio data; and
    populating a database with scene data and measurements selected from and measured in the scene data.

27. (Original) A method according to claim 26, further comprising deriving, from the audio data in the scene data, feature data representative of audible time-varying acoustic features of the audio data;
    and populating the database with said feature data.

28. (Original) A method according to claim 26, further comprising creating text data related to said scene data and measurements and populating said database with said text data.

29. (Original) A method according to claim 26, further comprising extracting still data representative of static video data from said scene data, and populating said database with said still data.

30. (Currently Amended)   ~~Graphical~~ A computer readable medium having thereon graphical user interface software comprising:

a video and graphics display program adapted to control a display screen <u>and an audio output</u> to display moving pictures in response to a stream of <u>synchronized</u> video data <u>and audio data</u> and to display a plurality of graphically defined control areas on said screen;

a control module adapted to detect selection of a said control area by coincidence of cursor positioning and actuation of a pointing device and to generate respective control signals in response to such selection; and

an output program adapted to respond to said control signals by outputting selected <u>sound- and- motion-</u>synchronized streams of <u>moving picture</u> video data and audio data, and <u>said output program being further adapted</u> to record an input audio stream ~~provided~~ <u>supplied thereto</u> during [[the]] said <u>output of</u> synchronized streams <u>while displaying moving pictures in response to the output video data stream</u>.